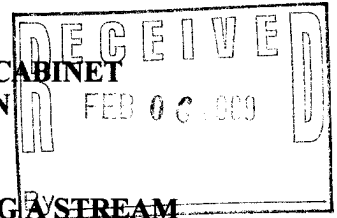


COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES & ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER



**APPLICATION FOR PERMIT TO CONSTRUCT ACROSS OR ALONG A STREAM
AND / OR WATER QUALITY CERTIFICATION**

Chapter 151 of the Kentucky Revised Statutes requires approval from the Division of Water prior to any construction or other activity in or along a stream that could in any way obstruct flood flows or adversely impact water quality. *If the project involves work in a stream, such as bank stabilization, dredging or relocation, you will also need to obtain a 401 Water Quality Certification (WQC) from the Division of Water.* This completed form will be forwarded to the Water Quality Branch for WQC processing. The project may not start until all necessary approvals are received from the KDOW. For questions concerning the WQC process, contact the WQC section at 502/564-3410.

If the project will disturb more than 1 acre of soil, you will also need to complete the attached Notice of Intent for Storm Water Discharges, and return both forms to the Floodplain management Section of the KDOW. This general permit will require you to create an implement an erosion control plan for the project.

1. **OWNER:** Haydon Bridge Company Inc. 191166
Give name of person(s), company, governmental unit, or other owner of proposed project.
MAILING ADDRESS: P.O. Box 175 Springfield, KY 40069

TELEPHONE #: 859-336-7533 **EMAIL:** _____
2. **AGENT:** _____
Give name of person(s) submitting application, if other than owner.
ADDRESS: _____

TELEPHONE #: _____ **EMAIL:** _____
3. **ENGINEER:** _____ **P.E. NUMBER:** _____
Contact Division of Water if waiver can be granted.
TELEPHONE #: _____ **EMAIL:** _____
4. **DESCRIPTION OF CONSTRUCTION:** See Attachment A for demolition plan
Describe the type and purpose of construction and describe stream impact

5. **COUNTY:** Henry/Owen **NEAREST COMMUNITY:** Gratz
6. **USGS QUAD NAME:** Gratz **LATITUDE/LONGITUDE:** Lat: 38 deg. 28 min. N, Long: 84 deg. 57 min. W.
7. **STREAM NAME:** KY River **WATERSHED SIZE (in acres):** _____
8. **LINEAR FEET OF STREAM IMPACTED:** 60 LF of stream temporarily occupied
9. **DIRECTIONS TO SITE:** From the intersection of US 127 and KY Rt 355, Take Rt 355 West for approx 7-8 Miles to intersection of KY Rt 22 @ Gratz, KY.

10. IS ANY PORTION OF THE REQUESTED PROJECT NOW COMPLETE? ☐ Yes ☒ No If yes, identify the completed portion on the drawings you submit and indicate the date activity was completed. DATE: _____
11. ESTIMATED BEGIN CONSTRUCTION DATE: August 2010
12. ESTIMATED END CONSTRUCTION DATE: August 2010
13. HAS A PERMIT BEEN RECEIVED FROM THE US ARMY, CORPS of ENGINEERS? ☐ Yes ☒ No If yes, attach a copy of that permit.
14. THE APPLICANT *MUST* ADDRESS PUBLIC NOTICE:

(a) PUBLIC NOTICE HAS BEEN GIVEN FOR THIS PROPOSAL BY THE FOLLOWING MEANS:

- ☐ Public notice in newspaper having greatest circulation in area (provide newspaper clipping or affidavit)
- ☐ Adjacent property owner(s) affidavits (Contact Division of Water for requirements.)

(b) ☒ I REQUEST WAIVER OF PUBLIC NOTICE BECAUSE:

N/A KYTC Project

Contact Division of Water for requirements.

15. I HAVE CONTACTED THE FOLLOWING CITY OR COUNTY OFFICIALS CONCERNING THIS PROJECT:

N/A KYTC Project

Give name and title of person(s) contacted and provide copy of any approval city or county may have issued.

16. LIST OF ATTACHMENTS: Demolition Plan (Attachment A), Profile (Attachment B), Topo Map (Attachment C),
List plans, profiles, or other drawings and data submitted. Attach a copy of a 7.5 minute USGS

topographic map clearly showing the project location.

KYTC BMP Plan for contract ID 081104 (Attachment D).

17. I, _____ (owner) CERTIFY THAT THE OWNER OWNS OR HAS EASEMENT RIGHTS ON ALL PROPERTY ON WHICH THIS PROJECT WILL BE LOCATED OR ON WHICH RELATED CONSTRUCTION WILL OCCUR (for dams, this includes the area that would be impounded during the design flood).

18. REMARKS: This is a KYTC project (KYTC Project # 081104)

I hereby request approval for construction across or along a stream as described in this application and any accompanying documents. To the best of my knowledge, all the information provided is true and correct.

SIGNATURE: _____

Owner or Agent sign here. (If signed by Agent, a Power of Attorney should be attached.)

DATE: 2/5/09

SIGNATURE OF LOCAL FLOODPLAIN COORDINATOR: _____

Permit application will be returned to applicant if not properly endorsed by the local floodplain coordinator.

DATE: _____

SUBMIT APPLICATION AND ATTACHMENTS TO:

Floodplain Management Section
Division of Water
14 Reilly Road
Frankfort, KY 40601

KY 22 - Bridge over KY River Demolition Plan

Gratz, KY

Contract ID: 08-1104

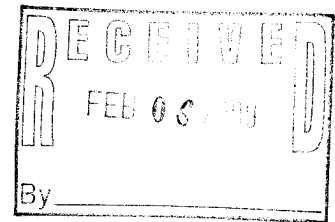
Demolition Date: (Approx. Late Summer 2010)



**HAYDON
BRIDGE
CO., INC.**

P.O. BOX 175
SPRINGFIELD,
KENTUCKY 40069
(859) 336-7533
FAX (859) 336-7096

February 5, 2009



Attn: Ron Dutta and Adam Jackson
Floodplain Management Section
Division of Water
200 Fair Oaks Lane
Frankfort KY, 40601

Re: Permit Application
KYTC Contract ID 081104
Henry/Owen County
KY 22 over Kentucky River

Dear Mr. Dutta and Mr. Jackson:

Enclosed please find our application for a 401 water quality certification for existing bridge demolition on a Kentucky Transportation Cabinet project on the Henry/Owen County line over the Kentucky River.

If additional information is needed, please contact this office.

Sincerely,

HAYDON BRIDGE COMPANY, INC.

Aaron Kegley

Traffic Control:

Upon completion of the new KY 22 over the KY River Bridge, traffic will be maintained along all newly constructed facilities. A guardrail barricade will be constructed at the end of Main Street at the east side abutment.

Phase I Demolition (Remove Concrete Deck)

The first step of the demolition process is to remove the existing concrete deck from the Gratz Bridge. This will be accomplished by saw-cutting through the deck concrete and the bottom mat of steel reinforcement dividing the deck into smaller sections. Each section of the deck will be removed by excavator and loaded onto truck for disposal.

Phase II Demolition (structure over land)

Phase II demolition will be carried out by the use of conventional demolition methods. Following removal of the concrete superstructure, the steel superstructure will be removed from spans 1-6. The substructure of spans 1-6, excluding the pier supporting span 7, will then be removed. Spans 8-14 will follow the same procedure starting with the superstructure and then the substructure. Span 14 crossing Harlan/Riverfront Street will require additional traffic control and protection of existing road during deck removal, superstructure and adjacent substructure piers demolition.

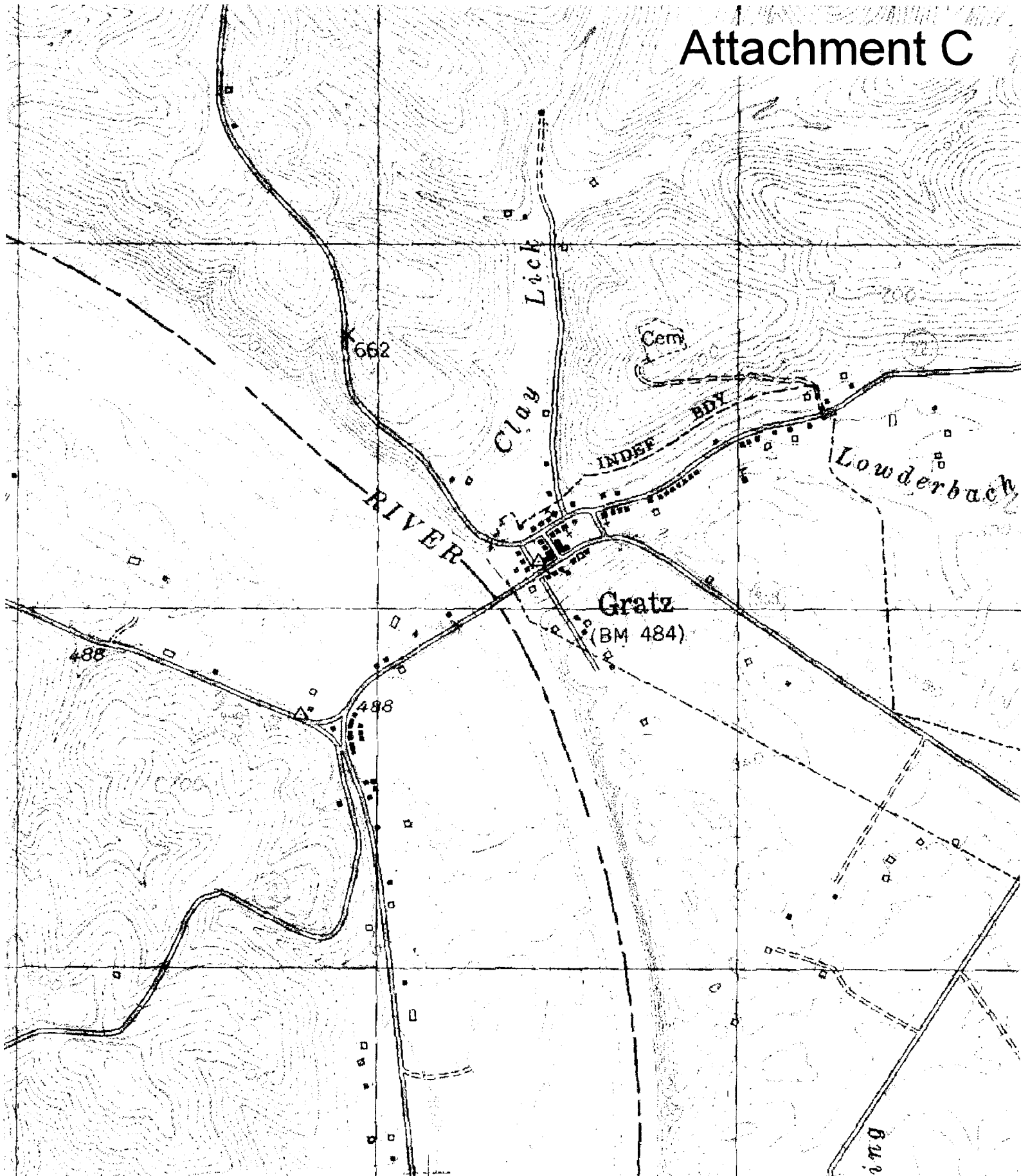
Phase III Demolition (structure over KY River)

In preparation of Phase III demolition local authorities will be notified, and a public notice given ahead of time notifying the public. The final phase of the Gratz Bridge Demolition includes Span 7 crossing the KY River and the two adjacent piers. Before the blast, spectators and the traffic will be barricaded at a distance of 800 ft from the blast site danger zone with assistance from local authorities. Once the demolition area is secured, Superior Demolition will cut the steel superstructure free of the connecting piers with explosive charges, dropping the steel superstructure into the river. Once the site is clear of all hazards from the blast and the "all clear" is given, normal traffic will be released. Superior Demolition will have equipment on site prepared to remove the debris

from the river as soon as possible to open the channel for river navigation. The debris will be removed by means of a barge and excavator on the Henry County side of the river.

Each of the piers adjacent to the water will be split horizontally above water level, and removed using conventional demolition methods. The remaining pier under water will then be drilled and shot to the elevation listed in approval letter from the Coast Guard.

Attachment C



KYTC BMP Plan for Contract ID 081104



Kentucky Transportation Cabinet

Highway District 5

And

_____ (2), Construction

Kentucky Pollutant Discharge Elimination System

Permit KYR10

Best Management Practices (BMP) plan

Groundwater protection plan

For Highway Construction Activities

For

Pleasureville-Gratz Road (KY 22)

Bridge and approaches over KY River

Contract ID 081104

KYTC BMP Plan for Contract ID 081104

Project Information

Note – (1) = Design (2) = Construction (3) = Contractor

1. Owner – Kentucky Transportation Cabinet, District 5
2. Resident Engineer: Joseph Middeler
P.O. Box 418
New Castle, KY 40050
3. Contractor Name: Haydon Bridge Company, Inc.
Address: P. O. Box 175, Springfield, KY 40069
Phone number: 859-336-7533
Contact: Aaron Kegley
Responsible Person: Aaron Kegley
4. Contract ID Number: 081104
5. Route (Address): Ky 22, Gratz
6. Latitude/Longitude (project mid-point) $38^{\circ} 28' 00''$, $84^{\circ} 57' 00''$
7. County (project mid-point): Henry/Owen
8. Project start date (date work will begin): December 1, 2008
9. Projected completion date: October 1, 2010

KYTC BMP Plan for Contract ID 081104

1.0 SITE DESCRIPTION.

- 1) Nature of construction activity (from letting project description).

Pleaseureville-Gratz Road (KY 22). Replace Bridge and Approaches over The KY River at Gratz on the Owen-Henry County Line.

- 2) Order of major soil disturbing activities.

(A) Install silt fence and other erosion control devices on Nim Smith Road and Mainline Sta. 424+00 – 437+00. Begin clearing and grubbing on Nim Smith Road and Mainline Sta. 424+00 – 437+00, once complete install pipe pad and pipe at Sta. 428+65 and install pipe pad and pipe at Sta. 50+75 (Nim Smith Rd). Cut design ditches at inlet and outlet ends of pipes as designed. Begin cutting and filling Nim Smith Rd. and Mainline Sta. 424+00 – 437+00, once slopes are complete, seeding and protection will occur.

(B) Install erosion control devices on KY 355 Sta. 44+71 – 59+90. Begin clearing and grubbing on KY 355, once complete excavation will begin.

(C) Install erosion control devices on Mainline Sta. 403+50 – 416+00 then begin clearing and grubbing. Install pipe pad and pipe at Sta. 410+36 and cut designed drainage ditches as shown on the plans. Fill material for this section will be haul from across the existing bridge, as the slopes are completed we will apply seeding and protection.

- 3) Projected volume of material to be moved. 104,000 CY

- 4) Estimate of total project area (acres). Approximately 13 acres

- 5) Estimate of area to be disturbed (acres). Approximately 11 acres

- 6) Post construction runoff coefficient will be included in the project drainage folder. Persons needing information pertaining to the runoff coefficient will contact the resident engineer to request this information. (1)

- 7) Data describing existing soil condition. R 37 to R45 (Included in the final plans – sheets R37 to R45) & (2)

- 8) Data describing existing discharge water quality (if any). (1) & (2)

- 9) Receiving water name. Kentucky River

- 10) TMDLs and Pollutants of Concern in Receiving Waters. (1 DEA)

KYTC BMP Plan for Contract ID 081104

- 11) Site Map. Project layout sheet plus the erosion control sheets in the project plans that depict Disturbed Drainage Areas (DDAs) and related information. These sheets depict the existing project conditions with areas delineated by DDA (drainage area bounded by watershed breaks and right of way limits), the storm water discharge locations (either as a point discharge or as overland flow) and the areas that drain to each discharge point. These plans define the limits of areas to be disturbed and the location of control measures. Controls will be either site specific as designated by the designer or will be annotated by the contractor and resident engineer before disturbance commences. The project layout sheet shows the surface waters and wetlands.
- 12) Potential sources of pollutants. The primary source of pollutants is solids that are mobilized during storm events. Other sources of pollutants include oil/fuel/grease from servicing and operating construction equipment, concrete washout water, sanitary wastes and trash/debris.

2.0 SEDIMENT AND EROSION CONTROL MEASURES.

2.1 Erosion Control Sheets. Plans for highway construction projects will include erosion control sheets that depict Disturbed Drainage Areas (DDAs) and related information. These plan sheets will show the existing project conditions with areas delineated by DDA within the right of way limits, the discharge points and the areas that drain to each discharge point. Project managers and designers will analyze the DDAs and identify Best Management Practices (BMPs) that are site specific. The balance of the BMPs for the project will be listed in the bid documents for selection and use by the contractor on the project with approval by the resident engineer.

Projects that do not have DDAs annotated on the erosion control sheets will employ the same concepts for development and managing BMP plans.

2.2 Annotations. Following award of the contract, the contractor and resident engineer will annotate the erosion control sheets showing location and type of BMPs for each of the DDAs that will be disturbed at the outset of the project. This annotation will be accompanied by an order of work that reflects the order or sequence of major soil moving activities. The remaining DDAs are to be designated as "Do Not Disturb" until the contractor and resident engineer prepare the plan for BMPs to be employed. The initial BMPs shall be for the first phase (generally Clearing and Grubbing) and shall be modified as needed as the project changes phases. The BMP Plan will be modified to reflect disturbance in additional DDA's as the work progresses. All DDA's will have adequate BMPs in place before being disturbed.

KYTC BMP Plan for Contract ID 081104

2.3 Disturbed Drainage Areas. As DDAs are prepared for construction, the following will be addressed for the project as a whole or for each DDA as appropriate:

- A) Construction Access.** This is the first land-disturbing activity. As soon as construction begins, bare areas will be stabilized with gravel and temporary mulch and/or vegetation.
- B) Sources.** At the beginning of the project, all DDAs for the project will be inspected for areas that are a source of storm water pollutants. Areas that are a source of pollutants will receive appropriate cover or BMPs to arrest the introduction of pollutants into storm water. Areas that have not been opened by the contractor will be inspected periodically (once per month) to determine if there is a need to employ BMPs to keep pollutants from entering storm water.
- C) Clearing and Grubbing.** The following BMPs will be considered and used where appropriate.

- 1) Leaving areas undisturbed when possible.
- 2) Silt Basins to provide silt volume for large areas.
- 3) Silt Traps Type A for small areas.
- 4) Silt Traps Type C in front of existing and drop inlets which are to be saved.
- 5) Diversion ditches to catch sheet runoff and carry it to basins or traps or to divert it around areas to be disturbed.
- 6) Brush and/or other barriers to slow and/or divert runoff.
- 7) Silt fences to catch sheet runoff on short slopes. For longer slopes, multiple rows of silt fence may be considered.
- 8) Temporary Mulch for areas which are not feasible for the fore mentioned types of protections.
- 9) Non-standard or innovative methods.

- D) Cut and Fill and Placement of Drainage Structures.** The BMP Plan will be modified to show additional BMPs such as:

- 1) Silt Traps Type B in ditches and/or drainways as they are completed.
- 2) Silt Traps Type C in front of pipes after they are placed.
- 3) Channel Lining
- 4) Erosion Control Blanket
- 5) Temporary Mulch and/or seeding for areas where construction activities will be ceased for 21 days or more.
- 6) Non-standard or innovative methods.

- E) Profile and X-Section in Place.** The BMP Plan will be modified to show elimination of BMPs which had to be removed and the addition of new BMPs as the roadway was shaped. Probably changes include:

- 1) Silt Trap Type A, Brush and/or other barriers, Temporary Mulch, and any other BMP which had to be removed for final grading to take place.
- 2) Additional Silt Traps Type B and Type C to be placed as final drainage patterns are put in place.

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- 3) Additional Channel Lining and/or Erosion Control Blanket.
- 4) Temporary Mulch for areas where Permanent Seeding and Protection cannot be done within 21 days.
- 5) Special BMPs such as Karst Policy.

F) Finish Work (Paving, Seeding, Protect, etc.). A final BMP Plan will result from modifications during this phase of construction. Probable changes include:

- 1) Removal of Silt Traps Type B from ditches and drainways if they are protected with other BMPs which are sufficient to control erosion, i.e. Erosion Control Blanket or Permanent Seeding and Protection on moderate grades.
- 2) Permanent Seeding and Protection.
- 3) Placing Sod.
- 4) Planting trees and/or shrubs where they are included in the project.

G) Post Construction. BMPs including Storm Water Management Devices such as velocity dissipation devices and Karst policy BMPs to be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed are: (1)

3.0 OTHER CONTROL MEASURES.

- 1) Solid Materials. No solid materials, including building materials, shall be discharged to waters of the commonwealth, except as authorized by a Section 404 permit.
- 2) Waste Materials. All waste materials that may leach pollutants (paint and paint containers, caulk tubes, oil/grease containers, liquids of any kind, soluble materials, etc.) will be collected and stored in appropriate covered waste containers. Waste containers shall be removed from the project site on a sufficiently frequent basis as to not allow wastes to become a source of pollution. All personnel will be instructed regarding the correct procedure for waste disposal. Wastes will be disposed in accordance with appropriate regulations. Notices stating these practices will be posted in the office.
- 3) Hazardous Waste. All hazardous waste materials will be managed and disposed of in the manner specified by local or state regulation. The contractor shall notify the Resident Engineer if there are any hazardous wastes being generated at the project site and how these wastes are being managed. Site personnel will be instructed with regard to proper storage and handling of hazardous wastes when required. The Transportation Cabinet will file for generator, registration when appropriate, with the Division of Waste Management and advise the contractor regarding waste management requirements.
- 4) Spill Prevention. The following material management practices will be used to reduce the risk of spills or other exposure of materials and substances to the weather and/or runoff.

KYTC BMP Plan for Contract ID 081104

2.4 Good Housekeeping. The following good housekeeping practices will be followed onsite during the construction project.

- 1) An effort will be made to store only enough product required to do the job.
- 2) All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.
- 3) Products will be kept in their original containers with the original manufacturer's label.
- 4) Substances will not be mixed with one another unless recommended by the manufacturer.
- 5) Whenever possible, all of the product will be used up before disposing of the container.
- 6) Manufacturers' recommendations for proper use and disposal will be followed
- 7) The site contractor will inspect daily to ensure proper use and disposal of materials onsite.

2.5 Hazardous Products. These practices will be used to reduce the risks associated with any and all hazardous materials.

- 1) Products will be kept in original containers unless they are not re-sealable.
- 2) Original labels and material safety data sheets (MSDS) will be reviewed and retained
- 3) Contractor will follow procedures recommended by the manufacturer when handling hazardous materials.
- 4) If surplus product must be disposed of, manufacturers' or state/local recommended methods for proper disposal will be followed.

2.6 The following product-specific practices will be followed onsite:

- A) Petroleum Products.** Vehicles and equipment that are fueled and maintained on site will be monitored for leaks, and receive regular preventative maintenance to reduce the chance of leakage. Petroleum products onsite will be stored in tightly sealed containers, which are clearly labeled and will be protected from exposure to weather.

The contractor shall prepare an Oil Pollution Spill Prevention Control and Countermeasure plan when the project that involves the storage of petroleum products in 55 gallon or larger containers with a total combined storage capacity of 1,320 gallons. This is a requirement of 40 CFR 112.

This project will have over 1,320 gallons of petroleum products with a total capacity, sum of all containers 55 gallon capacity and larger.

- B) Fertilizers.** Fertilizers will be applied at rates prescribed by the contract, standard specifications or as directed by the resident engineer. Once applied, fertilizer will be covered with mulch or blankets or worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.
- C) Paints.** All containers will be tightly sealed and stored indoors or under roof when not being used. Excess paint or paint wash water will not be discharged to the

KYTC BMP Plan for Contract ID 081104

drainage or storm sewer system but will be properly disposed of according to manufacturers' instructions or state and local regulations.

D) Concrete Truck Washout. Concrete truck mixers and chutes will not be washed on pavement, near storm drain inlets, or within 75 feet of any ditch, stream, wetland, lake, or sinkhole. Where possible, excess concrete and wash water will be discharged to areas prepared for pouring new concrete, flat areas to be paved that are away from ditches or drainage system features, or other locations that will not drain off site. Where this approach is not possible, a shallow earthen wash basin will be excavated away from ditches to receive the wash water

E) Spill Control Practices. In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- 1) Manufacturers' recommended methods for spill cleanup will be clearly posted. All personnel will be made aware of procedures and the location of the information and cleanup supplies.
- 2) Materials and equipment necessary for spill cleanup will be kept in the material storage area. Equipment and materials will include as appropriate, brooms, dust pans, mops, rags, gloves, oil absorbents, sand, sawdust, and plastic and metal trash containers.
- 3) All spills will be cleaned up immediately after discovery.
- 4) The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- 5) Spills of toxic or hazardous material will be reported to the appropriate state/local agency as required by KRS 224 and applicable federal law.
- 6) The spill prevention plan will be adjusted as needed to prevent spills from reoccurring and improve spill response and cleanup.
- 7) Spills of products will be cleaned up promptly. Wastes from spill clean up will be disposed in accordance with appropriate regulations.

4.0 OTHER STATE AND LOCAL PLANS. This BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in this BMP plan). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials. (1)

5.0 MAINTENANCE. The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.

Maintenance of BMPs during construction shall be a result of weekly and post rain event inspections with action being taken by the contractor to correct deficiencies.

Post Construction maintenance will be a function of normal highway maintenance operations. Following final project acceptance by the cabinet, district highway crews will be responsible for identification and correction of deficiencies regarding ground cover and cleaning

KYTC BMP Plan for Contract ID 081104

of storm water BMPs. The project manager shall identify any BMPs that will be for the purpose of post construction storm water management with specific guidance for any non-routine maintenance. (1)

6.0 INSPECTIONS. Inspection and maintenance practices that will be used to maintain erosion and sediment controls:

- 1) All erosion prevention and sediment control measures will be inspected by the contractor at least once each week and following any rain of one-half inch or more.
- 2) Inspections will be conducted by individuals that have received KYTC Grade Level II training or other qualification as prescribed by the cabinet that includes instruction concerning sediment and erosion control.
- 3) Inspection reports will be written, signed, dated, and kept on file.
- 4) Areas at final grade will be seeded and mulched within 14 days.
- 5) Areas that are not at final grade where construction has ceased for a period of 21 days or longer and soil stock piles shall receive temporary mulch no later than 14 days from the last construction activity in that area.
- 6) All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of being reported and completed within 5 days.
- 7) Built-up sediment will be removed from behind the silt fence before it has reached halfway up the height of the fence.
- 8) Silt fences will be inspected for bypassing, overtopping, undercutting, depth of sediment, tears, and to ensure attachment to secure posts.
- 9) Sediment basins will be inspected for depth of sediment, and built-up sediment will be removed when it reaches 70 percent of the design capacity and at the end of the job.
- 10) Diversion dikes and berms will be inspected and any breaches promptly repaired. Areas that are eroding or scouring will be repaired and re-seeded / mulched as needed.
- 11) Temporary and permanent seeding and mulching will be inspected for bare spots, washouts, and healthy growth. Bare or eroded areas will be repaired as needed.
- 12) All material storage and equipment servicing areas that involve the management of bulk liquids, fuels, and bulk solids will be inspected weekly for conditions that represent a release or possible release of pollutants to the environment.

7.0 NON-STORM WATER DISCHARGES. It is expected that non-storm water discharges may occur from the site during the construction period. Examples of non-storm water discharges include:

- 1) Water from water line flushings.
- 2) Water from cleaning concrete trucks and equipment.
- 3) Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- 4) Uncontaminated groundwater and rain water (from dewatering during excavation).

KYTC BMP Plan for Contract ID 081104

All non-storm water discharges will be directed to the sediment basin or to a filter fence enclosure in a flat vegetated infiltration area or be filtered via another approved commercial product.

8.0 GROUNDWATER PROTECTION PLAN.

This plan serves as the groundwater protection plan as required by 401 KAR 5:037.

Contractor's statement:

The following activities, as enumerated by 401 KAR 5:037 Section 2. (2) requiring the preparation and implementation of a groundwater protection plan, will or may be may be conducted as part of this construction project:

_____ (e) Land treatment or land disposal of a pollutant;

_____ (f) Storing, treating, disposing, or related handling of hazardous waste, solid waste or special waste, or special waste in landfills, incinerators, surface impoundments, tanks, drums, or other containers, or in piles, (This does not include wastes managed in a container placed for collection and removal of municipal solid waste for disposal off site);

_____ (g) Handling of materials in bulk quantities (equal or greater than 55 gallons or 100 pounds net dry weight transported held in an individual container) that, if released to the environment, would be a pollutant;

_____ (j) Storing or related handling of road oils, dust suppressants, or deicing agents at a central location;

_____ (k) Application or related handling of road oils, dust suppressants or deicing materials, (does not include use of chloride-based deicing materials applied to roads or parking lots);

_____ (m) Installation, construction, operation, or abandonment of wells, bore holes, or core holes, (this does not include bore holes for the purpose of explosive demolition);

Or, check the following only if there are no qualifying activities

 X There are no activities for this project as listed in 401 KAR 5:037 Section 2 that require the preparation and implementation of a groundwater protection plan.

The contractor is responsible for the preparation of a plan that addresses the 401 KAR 5:037 Section 3. (3) Elements of site specific groundwater protection plan:

- (a) General information about this project is covered in the Project information;
- (b) Activities that require a groundwater protection plan have been identified above;
- (c) Practices that will protect groundwater from pollution are addressed in section C. Other control measures.

Sub-Contractor Certification

Hi-View, LLC	N.H. Stone, Inc.
P.O. Box 1764	P.O. Box 239
Corbin, KY 40702	Sharpsburg, KY 40374

N.H. Stone, Inc. installation and maintenance of permanent and temporary erosion control items including seeding and protection, temporary mulch.

Signed James M. McInerney title Assistant Secretary, James M. McInerney
typed or printed name signature

Signed Fred Clark title V.P./Operations, Fred Clark
typed or printed name signature

1. Sub Contractor Note: To be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Contract ID number and KPDES number when one has been issued.

- (d) Implementation schedule -- all practices required to prevent pollution of groundwater are to be in place prior to conducting the activity;
- (e) Training is required as a part of the ground water protection plan. All employees of the contractor, sub-contractor and resident engineer personnel will be trained to understand the nature and requirements of this plan as they pertain to their job function(s). Training will be accomplished within one week of employment and annually thereafter. A record of training will be maintained by the contractor with a copy provide to the resident engineer.
- (f) Areas of the project and groundwater plan activities will be inspected as part of the weekly sediment and erosion control inspections
- (g) Certification (see signature page.)

Contractor and Resident Engineer Plan Certification

The contractor that is responsible for implementing this BMP plan is identified in the Project Information section of this plan.

The following certification applies to all parties that are signatory to this BMP plan:


I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Further, this plan complies with the requirements of 401 KAR 5:037. By this certification, the undersigned state that the individuals signing the plan have reviewed the terms of the plan and will implement its provisions as they pertain to ground water protection.

Contractor and Resident Engineer Certification:

Signed Thomas S. Haydon III title President
typed or printed name


signature

Signed [Signature] title [Signature]
typed or printed name


signature

1. *Contractors Note: to be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Contract ID number and KPDES number when one has been issued.*

2. *KYTC Note: to be signed by the Chief District Engineer or a person designated to have the authority to sign reports by such a person (usually the resident engineer) in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky*

Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601 Reference the Contract ID number and KPDES number when one has been issued.

Sub-Contractor Certification

The following sub-contractors shall be made aware of the BMP plan and responsible for implementation of BMPs identified in this plan as follows:

Hi-View, LLC	N.H. Stone, Inc.
P.O. Box 1764	P.O. Box 239
Corbin, KY 40702	Sharpsburg, KY 40374

The part of BMP plan these subcontractors is responsible to implement is:

Hi-View, LLC installation and maintenance of permanent and temporary erosion control items including silt fence, silt traps and channel lined ditches.

N.H. Stone, Inc. installation and maintenance of permanent and temporary erosion control items including seeding and protection, temporary mulch.

I certify under penalty of law that I understand the terms and conditions of the general Kentucky Pollutant Discharge Elimination System permit that authorizes the storm water discharges, the BMP plan that has been developed to manage the quality of water to be discharged as a result of storm events associated with the construction site activity and management of non-storm water pollutant sources identified as part of this certification.

Signed Tim Hill title Managing Member, Tim Hill
typed or printed name signature

Signed Teresa M. Haddad title Secretary, Teresa M. Haddad
typed or printed name signature

1. Sub Contractor Note: To be signed by a person who is the owner, a responsible corporate officer, a general partner or the proprietor or a person designated to have the authority to sign reports by such a person in accordance with 401 KAR 5:060 Section 9. This delegation shall be in writing to: Manager, KPDES Branch, Division of Water, 14 Reilly Road, Frankfort Kentucky 40601. Reference the Contract ID number and KPDES number when one has been issued.

PLANS OF PROPOSED PROJECT

HENRY - OWEN COUNTY
KY 22 - BRIDGE OVER KENTUCKY RIVER

ITEM NO. 5-1031.00
BR0 5140 (29)

GRADE, DRAIN, AND SURFACING PLANS

SHEET NO.	DESCRIPTION
1	GENERAL NOTATIONS AND DETAILS
2	STATEMENT OF QUANTITIES
3	LEASER AND UTILITY OWNERSHIP
4	RIGHT OF WAY STATEMENT
5	INTEREST OF THE STRIPPING LAIOT SHEET
6	EXISTING CHURCH SHEETS
7	EXISTING CHURCH SHEETS
8	STRIPPING LAIOT SHEET
9	PROJECT CONTROL AND PROTECTION SHEET
10	PROPOSED EXISTING SHEET
11	PROPOSED EXISTING SHEET
12	PROPOSED EXISTING SHEET
13	PROPOSED EXISTING SHEET
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96	PROPOSED EXISTING SHEET
97	PROPOSED EXISTING SHEET
98	PROPOSED EXISTING SHEET
99	PROPOSED EXISTING SHEET
100	PROPOSED EXISTING SHEET

PCB NOT USED

	TOTAL SHEETS
(R) ROADWAY	71
(S) STRUCTURE	40
(T) TRAFFIC	0
(U) UTILITY	26
(X) CROSS SECTION	61

SHEETS NOT INCLUDED IN TOTAL SHEETS

R2A - R24, R23A - R23C

• PG AMERICAS WAS NOT RESPONSIBLE FOR DEVELOPMENT OF THE HISTORIC MITIGATION SHEETS (R23A - R23C) OR THE WATERLINE RELOCATION SHEETS (U1 - U26).

STANDARD DRAWINGS

NUMBER	
REB-001-03	REB-020-03
REB-002-01	REB-021-01
REB-003-01	REB-022-01
REB-004-07	REB-023-08
REB-005-06	REB-024-05
REB-006-06	REB-025-04
REB-007-05	REB-026-02
REB-008-04	REB-027-03
REB-009-04	REB-028-03
REB-010-04	REB-029-03
REB-011-04	REB-030-03
REB-012-04	REB-031-03
REB-013-05	REB-032-04
REB-014-04	REB-033-04
REB-015-04	REB-034-04
REB-016-04	REB-035-06
REB-017-04	REB-036-06
REB-018-04	REB-037-05
REB-019-04	REB-038-05
REB-020-04	REB-039-05
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REB-022-04	REB-041-05
REB-023-04	REB-042-05
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REB-025-04	REB-044-05
REB-026-04	REB-045-05
REB-027-04	REB-046-05
REB-028-04	REB-047-05
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TRAFFIC DATA

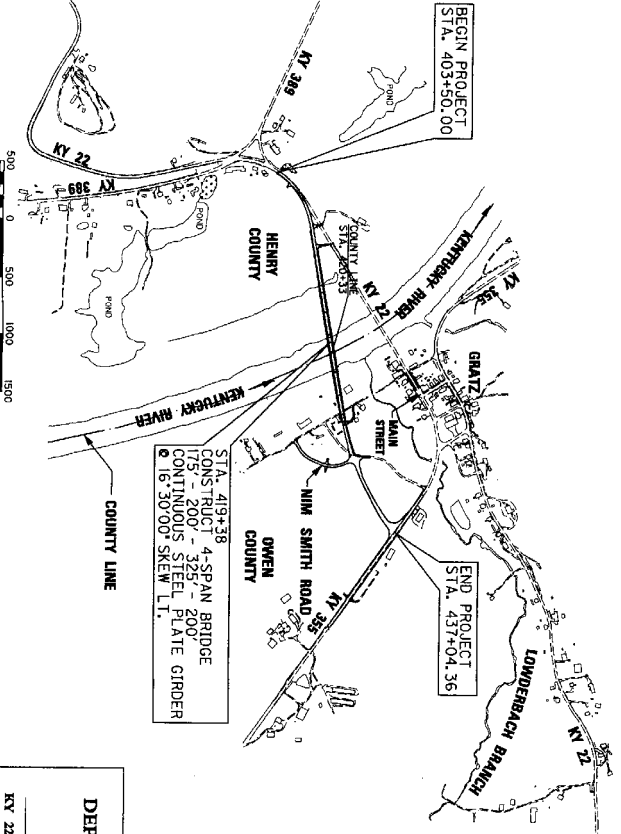
TRAFFIC DATA				
SEQUENT	2001 AOT	2026 AOT	2026 DMV	12
KY 22	1000	1640	175	16.5% OF AOT
KY 355	780	2200	210	16.5% OF AOT
KON SOUTH	< 100	< 100	N/A	N/A

DESIGN CRITERIA

CLASS OF HIGHWAY	RURAL MAJOR COLLECTOR
TYPE OF TERRAIN	ROLLING
DESIGN SPEED	55 MPH
REQUIRED NPSD	495'
REQUIRED PSD	1985'
LEVEL OF SERVICE	C
AOT PRESENT (2006)	1000
AOT FUTURE (2026)	1640
DIV	175
DIV	175
T	502' - 502'
	18.92 (AOT) - 12.62 (DIV)

GEOGRAPHIC COORDINATES			
LATITUDE	38	DEGREES	28
LONGITUDE	84	DEGREES	57
		MINUTES WEST	

DESIGNED	
2. RESTRICTED SP	N/A
LEVEL OF SERVICE	B
MAX. DISTANCE W/O PASSING	N/A



LAYOUT MAP

KY 355 & NIM SMITH ROAD				TOTAL PROJECT			
LENGTH	3,354.36	LN. FT.	0.635	LENGTH	2,748.48	LN. FT.	0.407
KNOWN				KNOWN			
FOR EQUITABLES	NOT INCLUDED	LN. FT.		FOR EQUITABLES	NOT INCLUDED	LN. FT.	
RAILROAD CROSSINGS NO.		LN. FT.		RAILROAD CROSSINGS NO.		LN. FT.	
BRIDGES		LN. FT.		BRIDGES		LN. FT.	
LENGTH	5,502.84	LN. FT.	1.042	LENGTH	4,953	LN. FT.	
KNOWN				KNOWN			
FOR EQUITABLES	NOT INCLUDED	LN. FT.		FOR EQUITABLES	NOT INCLUDED	LN. FT.	
RAILROAD CROSSINGS NO.		LN. FT.		RAILROAD CROSSINGS NO.		LN. FT.	
BRIDGES		LN. FT.		BRIDGES		LN. FT.	

**KENTUCKY
DEPARTMENT OF HIGHWAYS**

HENRY - OWEN

KY 22 - BRIDGE OVER KENTUCKY RIVER

ITEM NO. 5-1031.00 IND. CARS (200)


PROJECT NUMBER: FD52 094 0022 000-001
FD52 052 0033 033 032

SETTING DATE: 9-26-88

COMPLETED BY: Jack L. Givens DATE: 3-10-80
PROJECT NUMBER: 100-100000

APPROVED BY: Michael A. Clark DATE: 9/5/01
STATE MICHIGAN ENGINEER

9

DATE: 5-14-08
PLANS PREPARED AND
SUBMITTED BY:

PB
2008

PB Associates, Inc.
2333 Alameda Park Plaza, Suite 130
Oakridge, OR 97131
Tel: 503-255-5400

STATE OF OREGON
DEPARTMENT OF REVENUE
TAXPAYER
STAKE
SLIDE
15846

EROSION CONTROL NOTES

ALL SILT TRAPS SHALL BE SIZED TO RETAIN A VOLUME OF 3,600 CUBIC FEET PER DISTURBED CONTRIBUTING ACRE.

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED GROUND DURING EACH PHASE OF CONSTRUCTION. THE CONTRACTOR SHALL COMPUTE THE VOLUME NECESSARY TO CONTROL SEDIMENT DURING EACH PHASE OF CONSTRUCTION. AS WORK PROCEEDS, SILT TRAPS MAY BE ADDED OR REMOVED IN ORDER TO ACHIEVE THE BEST MANAGEMENT PLAN. THE REQUIRED VOLUME AT EACH ADDED SILT TRAP SHALL BE COMPUTED AS UPGRADIENT CONTRIBUTING AREAS ARE DISTURBED OR ARE STABILIZED TO THE SATISFACTION OF THE ENGINEER. THE REQUIRED VOLUME CALCULATION FOR EACH SILT TRAP SHALL BE DETERMINED BY THE CONTRACTOR AND VERIFIED BY THE ENGINEER. THE REQUIRED VOLUME AT EACH SILT TRAP MAY BE REDUCED BY THE FOLLOWING AMOUNTS:

- UPGRADIENT AREAS NOT DISTURBED (ACRES).
- UPGRADIENT AREAS THAT HAVE BEEN RECLAIMED AND PROTECTED BY TEMPORARY MULCH, EROSION CONTROL BLANKET, OR OTHER GROUND PROTECTION MATERIAL (ACRES).
- UPGRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT FENCE (ACRES).
- AREAS PROTECTED BY SILT FENCE SHALL BE COMPUTED AT A MAXIMUM RATE OF 100 SQUARE FOOT PER LINEAR FOOT OF SILT FENCE.
- UPGRADIENT AREAS THAT HAVE BEEN PROTECTED BY SILT TRAPS (ACRES).

THE EROSION CONTROL PLAN SHALL BE ANNOTATED AS THE WORK PROCEEDS BY THE CONTRACTOR TO DETAIL THE SELECTION OF EACH EROSION CONTROL DEVICE USED AND THE VOLUME PROVIDED BY EACH SILT TRAP IN ACCORDANCE WITH THE DOCUMENTATION PROCEDURES ESTABLISHED BY THE DIVISION OF CONSTRUCTION.

ONE SILT TRAP, TYPE A, ALTERNATE NUMBER 2 OR SILT TRAP, TYPE B SHALL ALWAYS BE PLACED AT THE MOST REMOTE DOWNSTREAM COLLECTION POINT PRIOR TO DISCHARGING INTO A BLUE LINE STREAM OR ONTO AN ADJACENT PROPERTY OWNER.

CONSTRUCT SILT TRAP, TYPE A IN NATURAL OR EXCAVATED CHANNELS. TRAPS MAY CONSIST OF A PIT, A BERM, OR BOTH. PITS SHALL BE 2 TO 4 FEET DEEP, 20 TO 30 FEET LONG AND 5 TO 10 FEET WIDE. BERMS SHALL BE NO MORE THAN APPROXIMATELY 3 FEET IN HEIGHT UNLESS APPROVED BY THE ENGINEER.

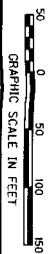
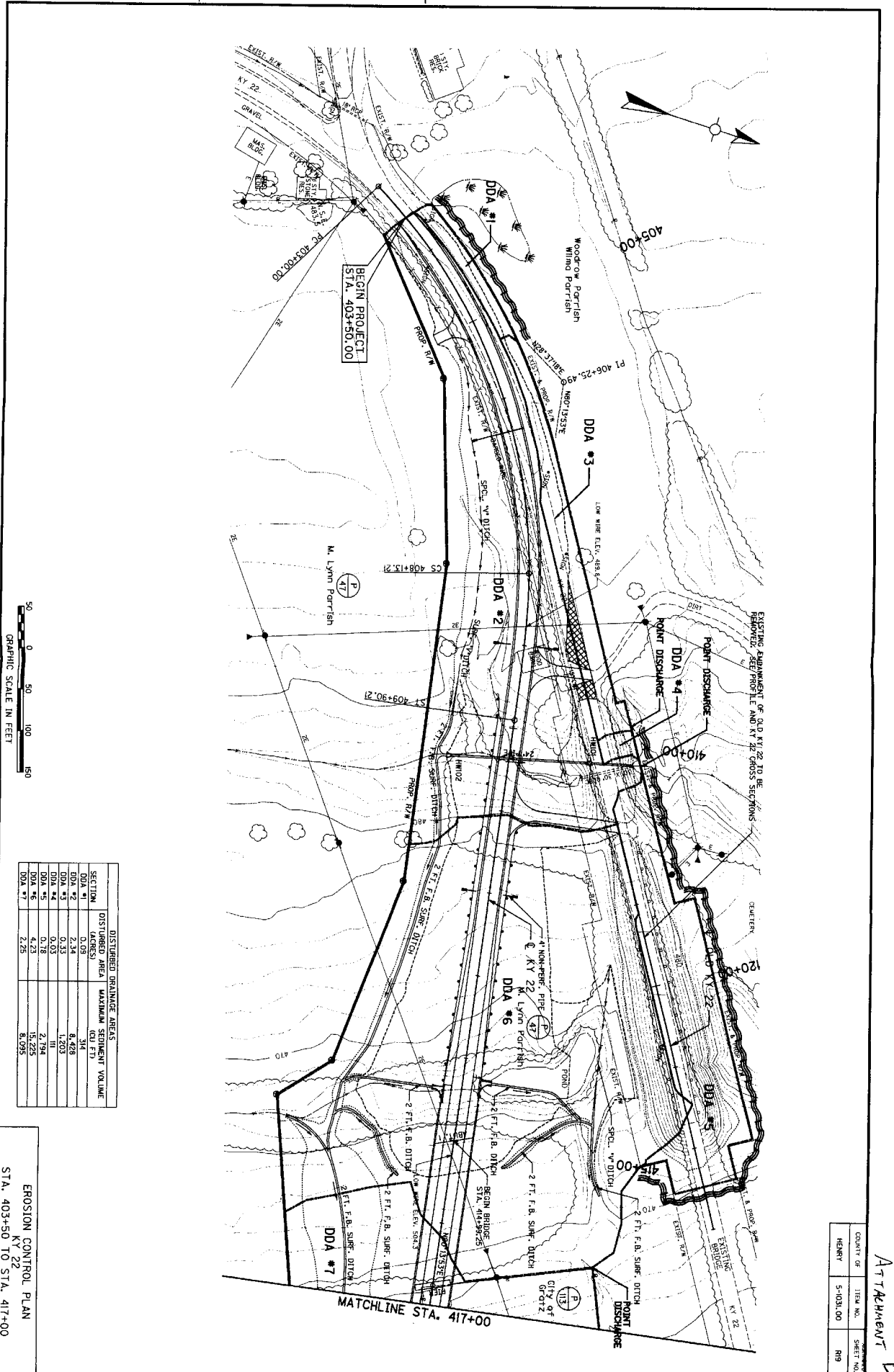
CONSTRUCT SILT TRAP, TYPE B PRIMARILY IN ROADWAY DITCHES OR EXCAVATED CHANNELS. TRAPS SHALL BE COMPOSED OF NO. 2 STONE OR BLASTED ROCK OF SIMILAR SIZE, QUALITY, AND GRADATION APPROVED BY THE ENGINEER. A FOUR INCH MINIMUM THICK LAYER OF CRUSHED AGGREGATE HAVING 100% PASSING THE 3" SIEVE AND NO MORE THAN 5% PASSING THE NO. 8 SIEVE SHALL BE PLACED ON THE UPSTREAM FACE OF THE BERM. THIS LAYER SHALL BE UNDERLAIN WITH TYPE 2 GEOTEXTILE FABRIC.

CONSTRUCT SILT TRAP, TYPE C AT CURB INLETS, DROP BOX INLETS, OR CULVERT INLETS. TRAPS SHALL CONSIST OF MULTIPLE ROWS OF 18" X 30" INTERLOCKING BAGS COMPOSED OF NON-WOVEN TYPE II GEOTEXTILE FABRIC AND FILLED WITH NO. 57 STONE. SILT TRAP, TYPE C SHALL NOT BE PLACED IN BLUE LINE STREAMS.

REMOVE AND PROPERLY DISPOSE OF SEDIMENT DEPOSITED AT EACH SILT TRAP WHEN GREATER THAN HALF FULL. SILT TRAPS SHALL BE REMOVED UPON COMPLETION OF THE JOB UNLESS OTHERWISE DIRECTED BY THE ENGINEER. WHEN NO LONGER NEEDED, REMOVE SILT TRAP AND DISPOSE OF SEDIMENT AND MATERIAL IN ACCORDANCE WITH SECTION 204 OR THE STANDARD SPECIFICATIONS, REGRADE, SEED AND PROTECT OR SOD THE DISTURBED AREAS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL LEGEND

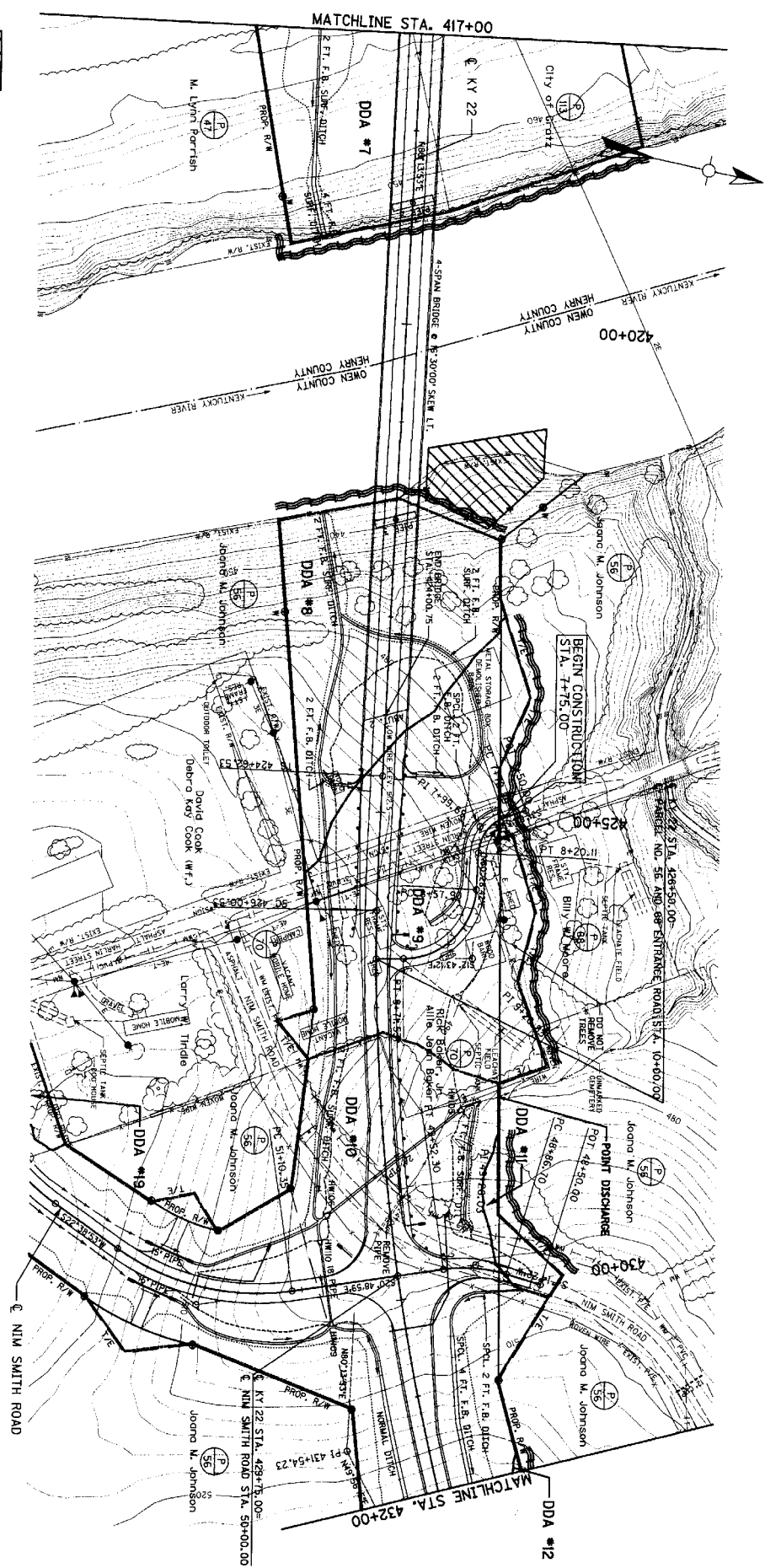
SILT TRAP TYPE A ALTERNATE 1	
SILT TRAP TYPE A ALTERNATE 2	
SILT TRAP TYPE B	
SILT CHECK TYPE C	
SILT FENCE	
TEMPORARY SILT DITCH	
DISTURBED DRAINAGE AREA	
OVERLAND SHEET FLOW	



DISTURBED DRAINAGE AREAS		
SECTION	DISTURBED AREA (ACRES)	MAXIMUM SEGMENT VOLUME (CU FT)
DDA #1	0.09	314
DDA #2	2.34	8,428
DDA #3	0.33	1,203
DDA #4	0.28	924
DDA #5	0.38	1,274
DDA #6	4.43	15,225
DDA #7	2.25	8,095

EROSION CONTROL PLAN
KY 22
STA. 403+50 TO STA. 417+00

COUNTY OF	ITEM NO.	SHEET NO.
HENRY-OWEN	5-103.00	R20



CONTRACTOR IS PROHIBITED FROM THIS AREA AT ALL TIMES

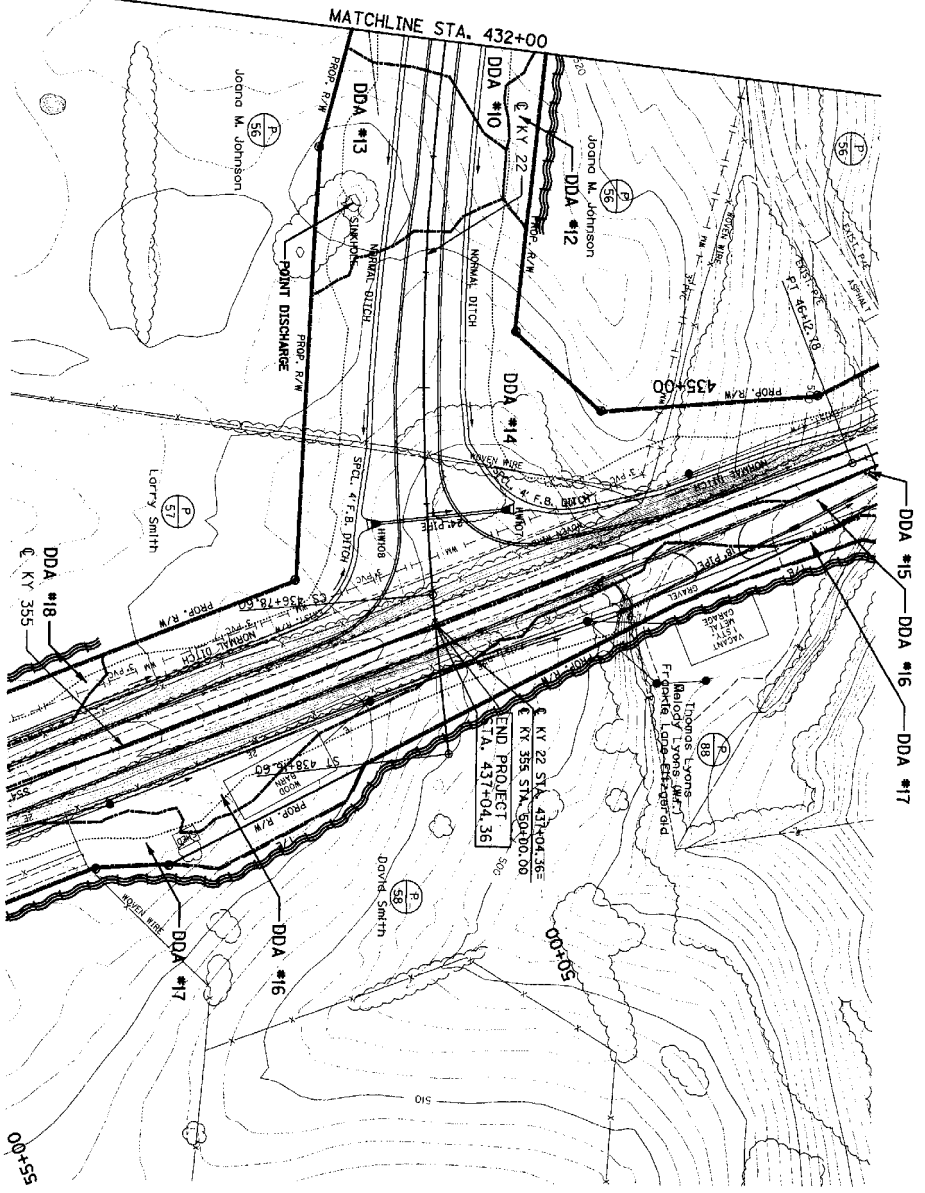
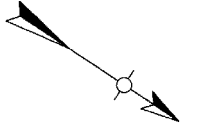


SECTION	DISTURBED DRAINAGE AREAS	DISTURBED AREA (ACRES)	MAXIMUM SEGMENT VOLUME (CU FT)
DDA #7	2.25	8.095	4,356
DDA #8	1.21	4.356	2,326
DDA #9	1.72	6.206	3,352
DDA #10	3.51	12.694	6,828
DDA #11	0.08	0.28	154
DDA #12	0.14	0.514	281

EROSION CONTROL PLAN
KY 22
STA. 417+00 TO STA. 432+00

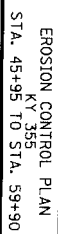
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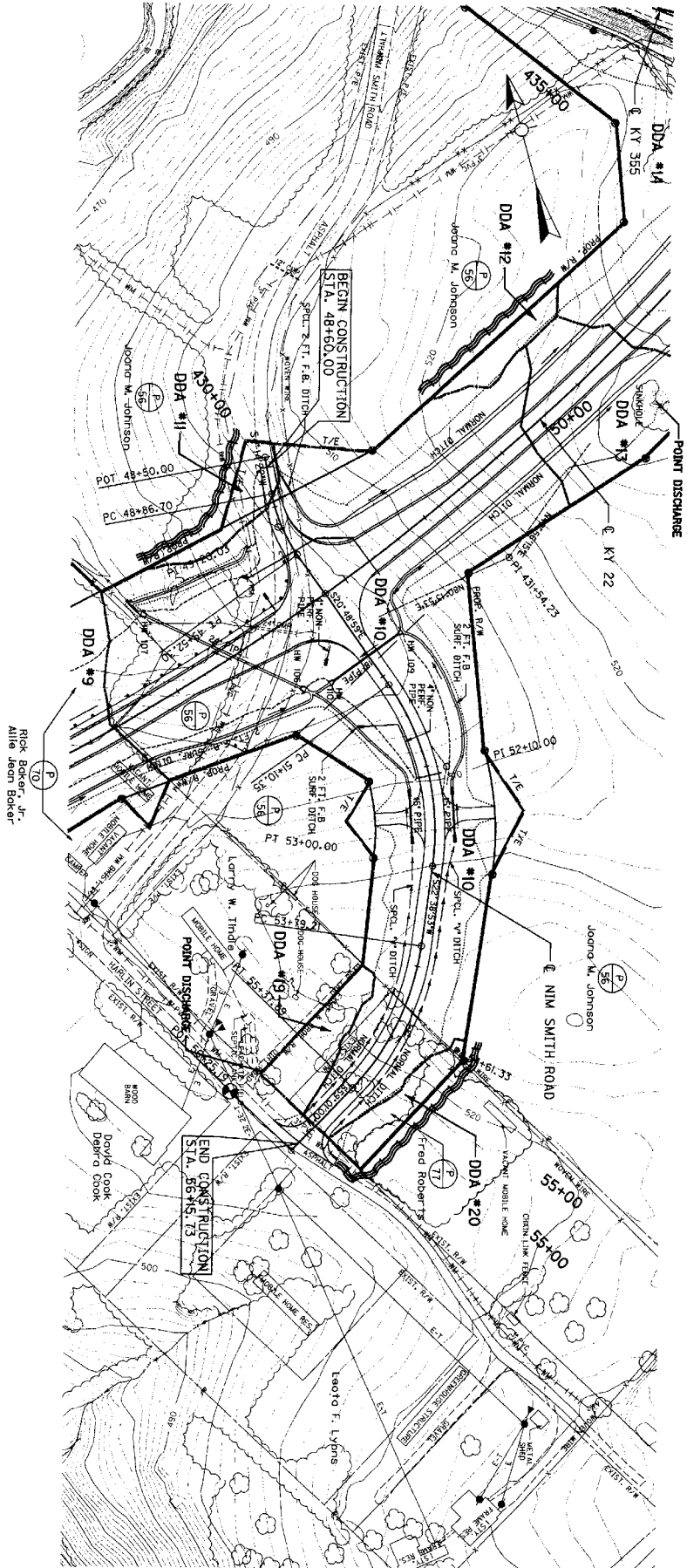
PREPARED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE



SECTION	DISTURBED DRAINAGE AREA (ACRES)	WATERSHED VOLUME (CU FT)
DDA #10	3.51	12,554
DDA #12	0.08	298
DDA #13	0.51	1,822
DDA #14	3.31	11,904
DDA #15	0.11	385
DDA #16	1.25	4,085
DDA #17	3.60	12,402
DDA #18	0.64	2,313

EROSION CONTROL PLAN
KY 22
STA. 432+00 TO STA. 437+04.36





SECTION	DISTURBED DRAINAGE AREA	MAXIMUM SEDIMENT VOLUME
DDA #9	1.72	6,205
DDA #10	3.51	12,654
DDA #11	0.10	375
DDA #12	0.08	298
DDA #13	0.51	1,822
DDA #14	3.34	11,904
DDA #20	0.12	414

EROSION CONTROL PLAN
NIM SMITH ROAD
STA. 48+60 TO 56+15.73